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09/488,572	01/21/2000	Ramesh Nagarajan	104422	4616

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EXAMINER

WU, JINGGE

ART UNIT	PAPER NUMBER
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2623

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 10

Application Number: 09/488,572
Filing Date: January 21, 2000
Appellant(s): NAGARAJAN ET AL.

MAILED

NOV 03 2003

Technology Center 2600

Jon F. Hadidi
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on August 25, 2003

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments after final rejection*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Interview with Examiner*

The appellant's statement of the interview summary after final rejection contained in the brief is correct.

(6) *Summary of Invention*

The summary of invention contained in the brief is correct.

(7) *Issues*

The appellant's statement of the issues in the brief is correct.

(8) *Grouping of Claims*

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The rejection of claims 1-5 stand or fall together.

(9) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief .

(10) Prior Art of Record

5,339,172 Robinson 8-1994

(11) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1 Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5339172 to Robinson.

As to claim 1, Robinson discloses a method for segmenting an image comprising:

determining a selected segmentation mode to be used when segmenting the image (Fig. 4 and 5, col. 7, line 7-col. 9 line 65, S184 is the step to determine);

determining if selected segmentation mode is an automatic mode (Fig. 4 and 5, col. 7, line 7-col. 8 line 15, S184 is the step to determine, and this mode is inherently an automatic mode);

inputting a new value for each at least automatic segmentation parameter to be changed, if the user wishes to change at least one parameter of the selected mode (Fig. 4-5, col. 7 line 65-col. 9 line 65, S186 and S188-I, I= 1-m are the input step using the dialog screen of Fig. 4); and

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segmenting the image using the automatic parameter values, including the new segmentation parameter values (Fig. 4-5, col. 8-col. 10, line 15).

As to claims 2 and 5, Robinson further discloses alternating at least one other automatic segmentation parameter value each time the new parameter is selected (col. 8 line 5-col. 9 line 66, S200).

As to claims 3-4, Robinson further discloses storing the at least one new segmentation parameter value (col. 9 lines 9-66, note that storing the values is inherent because the computer must receive and store the input value, then identify it as which variables or options or modes are selected by the user).

(12) Response to Argument

(A) The following discussion relates to the rejection of claims 1-5 under 35 U.S.C. 102(b) as being anticipated by US 5339172 to Robinson.

1. Appellants' argument---- Appellant argues that "Once any given **segmentation mode** is related, the particular look-up table associated with the mode is variably selected, and the user has no ability to either vary the look-up table that is related as a result of the **segmentation mode** being selected or vary the specific values stored in the selected look-up table". (page 11, paragraph 1, emphasis by the Examiner).

Examiner's response ---- The Examiner disagrees with Appellant's misunderstanding on this part of Robinson. First, Robinson does not mention once a "segmentation mode" is related, then a particular LUT is related as the result of

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selecting a "segmentation mode". What Robinson described in the Fig. 5 is that "operator selects the segmentation image quality mode" (s 184) (note that this is the step of selecting segmentation mode by the user), then "present N(i) image quality options" (S186) and "choose N(m)?" (S188) (note that this is the step of inputting parameters N(i) by the user and **Appellant misunderstood and mischaracterized this step is select a segmentation mode**), and further then "appropriate parameters are down loaded to segmentor for N(i)" (S190) and finally, if answer to "print quality optimal?" (S198) is no, "select a **new value** of N(i)" (S200, emphasis by the Examiner) (note that user will choose new parameters N(i) not parameters in LUT). From Fig. 5, and the description of Robinson in col. 9 lines 25-44, it is clear that only after a user chooses parameters or options or modes (not segmentation mode), then parameters in LUT will be loaded. Appellant's argument shows his misunderstanding of Robinson and thus, one reason results in this appeal brief.

Furthermore, the parameters in the instant case are the "**parameters for each segment type**" (Fig. 5, S160, page 11, specification) or "**the parameters of segment main class**" input in the automatic segmentation mode (Fig. 6, S360, page 12, specification). Appellant also expressly mentions in this brief that "The user thus provides at least on new parameter value for one or more of the parameters relating to one or more of the main classes." (page 3, paragraph 3). Since the parameters defined in the claims and the specification in the instant case are not the parameters loaded the LUT, Appellant's argument implies if the user can not change the parameters of the LUTs described in Robinson, then Robinson can not be used as a 102 reference is

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illogical because Appellant's claim on **parameters** can not be constructed the way Appellant has argued, and neither in Robinson nor Appellant's invention can change **parameters in LUT** after the LUT is selected corresponding to the selection of options or modes or segment subclasses. Appellant is shooting the wrong bird when he argues the parameters of LUT can not be changed.

Finally, contrast to the Appellant's misunderstanding, Robinson shows a user interface screen (Fig. 4), representing "a segmentation dialog", to allow user to input different "options or modes" **as parameters** for the segmentation. After a user select the segmentation mode (Fig. 5, S184), the user can select options or modes presented in the dialog screen as parameters for the segmentation (col. 7 line 64-col. 9 line 44). The disclosure of Robinson can be clearly read on the every elements of the claims 1-5.

2. Appellants' argument---- Appellant also argues that 1) "an operator selects a start icon (step 184), and is presented with various options (step 186). The various options or **segmentation modes** are designated by the variable $N(i)$ Steps 188-1, 188-2... 188-M, illustrate that the user can choose a segmentation mode from one of m modes. Upon choosing one of the segmentation modes (step 190), appropriate parameters for obtaining the mapping function, which are predetermined and are fixed, and which are stored in one of m look-up table for the **selected segmentation mode**, are downloaded to segmentation control 180 of Figure 1. The user had no discretion on this process." (page 10, paragraph 3, emphasis added by the Examiner); 2) "... if print quality is acceptable (step 198), then the process is ended; otherwise, a new **segmentation mode** is chosen (step 200) and the process is repeated." (page 11,

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paragraph 2, emphasis added by the Examiner); and 3) "Robinson clearly states that changing the variable N(i) changes only the **selected segmentation mode**, and does not result in any of the predetermined parameter values in any of the m look-up tables corresponding to the selected mode being changed in any way from the predetermined values. ... the print quality determining step 198 does not use or need **segmentation** parameter values in any of the m look-up tables, at step 198 simply queries the user to determine if the print quality is acceptable, so that, if it is not, a different **segmentation mode**, not any different values for parameters of that segmentation mode, can be selected". ... "changing **segmentation modes** is not equivalent to changing a parameter within a mode once the mode is selected" (page 11, paragraph 3, emphasis added by the Examiner).

Examiner's response ---- The Examiner does not agree with Appellant. First, comparing highlight word "**segmentation mode (s)**" quoted in above with the specification of Robinson, Appellant apparently and arbitrarily **adds** word "segmentation" before the mode(s) and mischaracterizes Robinson's "options or modes" as segmentation mode(s) as the automatic segmentation mode in the claims. What Robinson describes is "the various options or modes" in step 186 and 188 (col. 9 lines 28-29), not segmentation mode. Appellant's argument further shows his mischaracterization of Robinson, another reason results in this appeal brief. What "the various options or modes" presented in the segmentation dialog screen (Fig. 4, Robinson) are the parameters for the segmentation mode selected by the operator in step 184 (Fig. 5, note that Robinson expressly mention "segmentation quality mode"

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here and only "options", "modes" or "variables" for the steps 188 (i) $i = 1-m$), and are not the "segmentation mode" defined in the claims. Again, Appellant uses his misunderstanding and mischaracterizing of Robinson to form his wrong argument.

Furthermore, the Examiner recognizes for making a prima facie case, a person of ordinary skill in the art would have recognized the interchangeability of the element shown in the prior art for the corresponding elements in the specification. *Caterpillar Inc v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000). Robinson discloses the elements are either same or substantially similar with corresponding elements in the specification. Robinson discloses an automatic segmentation mode (Fig. 5, 184, comparing to Fig. 5 S150, specification, note that the segmentation mode in Robinson is an automatic segmentation mode because the computer will automatically perform the steps of Fig. 5) can be chosen by the user, then user can input segmentation parameters by selecting options or modes (parameters) through the dialog screen (Fig. 4, comparing to Fig. 3, specification). Those options or modes in Robinson are substantially similar with the options or modes showed in the Fig. 3 of the instant case. For example, sharpness and screen in Fig. 4 of Robinson, is substantially same as to sharpness level and screen modulation in fig. 3 of the instant case. A person of ordinary skill in the art would have recognized that the four segment classes of the instant case (Fig. 3) are the same as the four image types in Robinson, e.g., line/text (these two types are the same), high frequency (fine halftone is another name to describe the high frequency halftone), low frequency (coarse halftone is another

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interchangeable way to describe the low frequency halftone), or continuous tone (photo/contone is also another interchangeable way to describe the continuous tone).

Moreover, the Examiner also recognizes for making a prima facie case, that the prior art elements performs the identical function specified in the claim in substantially the same way, and produces substantial the same results as corresponding elements disclosed in the specification. *Kemco Sales Inc. v. Control Papers Co.*, 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000). Robinson's method is a very similar with that of the instant invention and the ways to input parameters for the segmentation are also similar. Robinson teaches selected icons "mixed" or "full" or "screen" etc (col. 8 line1-col 9, line 44). It can also be seen in Fig. 4, a digit scale can be set for inputting numbers (one having ordinary skill in the art of image processing can infer the scale could be used for setting up either sharpness level or screen modulation described in Fig. 3 of the instant case). The results of the functions in both Robinson and the instant case are substantially same. They are all choosing the segmentation mode, inputting parameters based on the types of the input image, and segmenting the image based on the input. In addition, Robinson further discloses a custom mode for input by customarily setting the mapping function used for segmentation, i.e., different combination of selecting LUTs based on the image types (col. 8 line 5-col. 9 line 45).

Finally, Robinson clearly and expressly teaches the all limitations in the claims 1-5, using same or very similar segmentation parameters and/or ways to inputting the parameters with those of the instant case. The prama facie case has been successfully established, Therefore, Appellant's argument is baseless and incorrect.

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3. Appellants' argument --- Appellant further argues that it is "entirely unfounded, unsupported, and is directly contrary to the teaching of Robinson" for Examiner's assertion "a user can change parameters in look-up tables by choosing one look-up table from a plurality of look-up tables" (page 11 paragraph 4).

Examiner's response --- The Examiner agree with Appellant on this part. However, this argument can not help the Appellant because the Examiner clearly explain his interpretation on Robinson in the interview after Final Action. First, in the interview, the Examiner explain that user can change "options or submodes" for the selected mode. Second, the interview summary after final is more clearly illustrated that the Examiner's reading on Robinson is 1) the "options or modes" in Fig. 5 are not the "segmentation mode" claimed in the claim language (Examiner used "submodes" to distinguish them); and 2) user can change "options or submodes" for the selected mode (See, interview summary, dated 1/21/2000). Finally, the Examiner believes that Appellant's argument is not on the point for the current position of the Examiner, which has been explained to the Appellant in the interview after final action.

4. Appellants' argument --- Appellant still further argues that Robinson fails in any way to describe, teach, or suggest allowing user to input, altering, at least one new automatic segmentation parameter value is input, at least one other automatic segmentation parameter values as recited in claim 2; storing the at least one new automatic segmentation parameter values and the at least on other automatic segmentation parameter value as recited in claims 3 and 4; and storing the at least one new automatic segmentation parameter value and alter at least one other automatic

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segmentation value each time the automatic segmentation mode is selected. (page 12, paragraph 3).

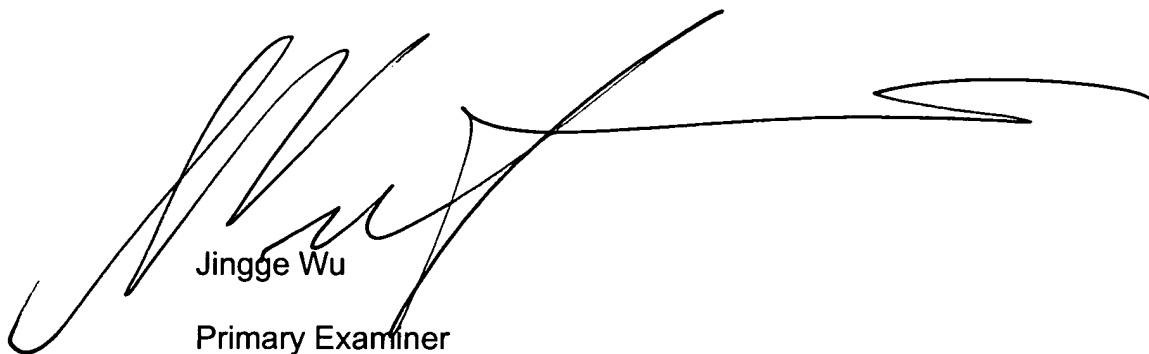
Examiner's response --- The Examiner does not agree with Appellant.

Here, Appellant does not have any details to support his assertion and he can not find any. In fact, Robinson teaches altering at least at least one other automatic segmentation parameter values by "selecting a new value of N(i)" in step 200 (Fig. 5, col. 9, lines 25-44) as recited in claim 2; storing the at least one new automatic segmentation parameter values and the at least on other automatic segmentation parameter value as new controls and new input from the segmentation dialog (col. 7, line 64-col. 9 line 44, note that storing the values is inherent because the computer must receive and store the input value, then identify it as which variables or options or modes are selected by the user, and finally segmenting the image as the user designated) as recited in claims 3 and 4; and storing the at least one new automatic segmentation parameter value (e.g. screen) and alter at least one other automatic segmentation value each time the automatic segmentation mode is selected (Fig. 5, col. 9 lines 25-44) as recited in claim 5. Thus, Appellant's argument is baseless and incorrect.

For the above reasons, it is believed that a prima facie case has been fully established and the rejections should be sustained.

Respectfully submitted

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Jingge Wu

Primary Examiner

October 28, 2003

Appeal Conferees:

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Amelia Au

A small, stylized handwritten signature in black ink, appearing to be the initials 'MD'.

Mehrdad Dastouri